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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,004	01/28/2004	Yingqing Lawrence Cui	08226/0200356-US0	5027

38880 7590 06/14/2006

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EXAMINER

POPHAM, JEFFREY D

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/767,004	CUI ET AL.	
	Examiner	Art Unit	
	Jeffrey D. Popham	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Remarks

Claims 1-45 are pending.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 41-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. These claims are directed towards "a modulated data signal", which is non-statutory subject matter. For purposes of prior art rejection, the claims have been construed as method claims as opposed to a signal.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9-23, and 25-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tewari (U.S. Patent Application Publication 2003/0097564) in view of Laraki (U.S. Patent Application Publication 2003/0233329).

Regarding Claim 1,

Tewari discloses a method of managing a communication with a device over a network comprising:

Receiving a request from the device, wherein the request includes associated information (Page 25, Paragraph 609);

Determining at least one level of trust based, in part, on the associated information (Page 25, Paragraphs 607-609; and Page 27, Paragraph 647); and

Determining at least one device signature for the device based on the at least one level of trust (Page 25; Paragraphs 610-615);

But does not disclose that the device is a mobile device.

Laraki, however, discloses that the device is a mobile device (Page 3, Paragraph 33). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the mobile subscription services of Laraki into the content delivery system of Tewari in order to efficiently provide mobile users with access to content based upon subscriptions and affiliations in which a user will not be charged twice for content that was previously paid for, but could not be downloaded prior to expiration of the subscription, and is downloaded after expiration, thus improving reliability of the system (Page 5, Paragraph 49).

Regarding Claim 45,

Claim 45 is an apparatus claim that corresponds to method claim 1 and is rejected for the same reasons.

Regarding Claim 2,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses receiving gateway information, and determining the at least one level of trust based, in part, on the associated information and the gateway information (Page 25, Paragraphs 607-609; and Page 27, Paragraph 647); and Laraki discloses that the gateway is associated with a carrier gateway for the mobile device (Pages 3-4, Paragraph 40).

Regarding Claim 3,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that the associated information comprises at least one of a device identifier, user agent information, and an indication that the device is enabled to accept a cookie (Page 25, Paragraph 615).

Regarding Claim 4,

Tewari as modified by Laraki discloses the method of claim 3, in addition, Laraki discloses that the associated information further comprises at least one of a gateway group identifier and a subscription identifier (Page 4, Paragraph 41).

Regarding Claim 5,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that the associated information further comprises an end-user identifier (Page 25, Paragraph 615).

Regarding Claim 6,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Laraki discloses that the associated information further comprises a subscription identifier associated with the mobile device that is based on at least one of a mobile identification number, an electronic serial number, and an application serial number (Pages 5-6, Paragraph 53).

Regarding Claim 7,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that determining the at least one level of trust further comprises if the associated information comprises a device identifier and trustworthy gateway information, determining a first level of trust (Page 25, Paragraphs 607-609; and Page 27, Paragraph 647); and Laraki discloses that determining the at least one level of trust further comprises if the associated information comprises a device identifier and trustworthy gateway information, determining a first level of trust (Pages 4-5, Paragraphs 46-48).

Regarding Claim 9,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that determining the at least one level of trust further comprises if the associated information indicates that the mobile device is enabled to use a URL, determining a third level of trust (Page 25, Paragraph 610).

Regarding Claim 10,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that determining at least one device signature further comprises if a first level of trust is determined, determining a first tier device signature based, in part, on a hash of at least one of a subscription identifier, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 11,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that determining at least one device signature further comprises if a second level of trust is determined, determining a second tier device signature based, in part, on a hash of at least one of a cookie, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 12,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that determining at least one device signature further comprises if a third level of trust is determined, determining a third tier device signature based, in part, on a hash of at least one of a gateway group identifier, a user agent identifier, a server identifier, a process identifier, a random number, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 13,

Tewari as modified by Laraki discloses the method of claim 12, in addition, Tewari discloses that determining the third tier device signature further comprises including the third tier device signature in a munged URL (Page 25, Paragraph 610).

Regarding Claim 14,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses that determining at least one device signature further comprises employing a hash function selected from at least one of a message digest, SHA, DES, 3DES, HAVAL, RIPEMD, and Tiger hash functions (Page 27, Paragraph 643).

Regarding Claim 15,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses expiring the at least one device signature based, in part, on a predetermined period of time associated with each of the at least one device signature (Page 25, Paragraph 617); and Laraki discloses expiring at least one device signature based, in part, on a predetermined period of time associated with each of the at least one device signature (Page 4, Paragraphs 44-45).

Regarding Claim 16,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Laraki discloses that if the at least one device signature has

expired, determining if the expired device signature is to be rolled over (Page 4, Paragraph 45; and Page 6, Paragraph 66); and

If the expired device signature is to be rolled over, extending a validity period associated with the expired device signature (Page 4, Paragraph 45; and Page 6, Paragraph 66).

Regarding Claim 17,

Tewari as modified by Laraki discloses the method of claim 16, in addition, Laraki discloses that determining if the expired device signature is to be rolled over further comprises evaluating at least one of a condition, event, change in an identifier indicating a grouping of the gateway, and a time (Page 4, Paragraph 45; and Page 6, Paragraph 66).

Regarding Claim 18,

Tewari discloses a client adapted for a device to communicate with a server over a network, the client being configured to perform actions comprising:

Sending a request to the server for content, wherein the request includes an identifier associated with a user agent (Page 25, Paragraphs 609 and 615); and

Receiving at least one device signature associated with the device, wherein the at least one device signature is based on at least one level of trust (Page 25, Paragraphs 607-609; and Page 27, Paragraph 647);

But does not disclose that the device is a mobile device.

Laraki, however, discloses that the device is a mobile device (Page 3, Paragraph 33). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the mobile subscription services of Laraki into the content delivery system of Tewari in order to efficiently provide mobile users with access to content based upon subscriptions and affiliations in which a user will not be charged twice for content that was previously paid for, but could not be downloaded prior to expiration of the subscription, and is downloaded after expiration, thus improving reliability of the system (Page 5, Paragraph 49).

Regarding Claim 19,

Tewari as modified by Laraki discloses the client of claim 18, in addition, Laraki discloses that the client is configured to provide a device identifier based on at least one of a mobile identification number, an electronic serial number, and an application serial number (Pages 5-6, Paragraph 53).

Regarding Claim 20,

Tewari as modified by Laraki discloses the client of claim 18, in addition, Tewari discloses that receiving the at least one device signature further comprises if the at least one device signature is based on a first level of trust, receiving a first tier device signature based, in part, on a hash of at least one of a subscription identifier, a gateway group identifier,

the user agent identifier, and a time stamp (Page 25, Paragraphs 609 and 615).

Regarding Claim 21,

Tewari as modified by Laraki discloses the client of claim 18, in addition, Tewari discloses that receiving the at least one device signature further comprises if the at least one device signature is based on a second level of trust, receiving a second tier device signature based, in part, on a hash of at least one of a cookie, a gateway group identifier, the user agent identifier, and a time stamp (Page 25, Paragraphs 609 and 615).

Regarding Claim 22,

Tewari as modified by Laraki discloses the client of claim 18, in addition, Tewari discloses that receiving the at least one device signature further comprises if the at least one device signature is based on a third level of trust, receiving a third tier device signature based, in part, on a hash of at least one of a gateway group identifier, a user agent identifier, a server identifier, a process identifier, a random number, and a time stamp (Page 25, Paragraphs 609 and 615).

Regarding Claim 23,

Tewari as modified by Laraki discloses the client of claim 18, in addition, Laraki discloses that sending the request further comprises sending the request to a carrier gateway, wherein the carrier gateway is configured to perform actions comprising modifying the request to include

at least one of a subscription identifier associated with the mobile device and a gateway identifier; forwarding the modified request to the server; receiving data from the server; and forwarding the data to the mobile device (Page 3, Paragraphs 33-37; and pages 4-5, Paragraphs 46-48); and Tewari discloses that the data comprises the at least one device signature (Page 25, Paragraphs 609-615).

Regarding Claim 25,

Tewari as modified by Laraki discloses the client of claim 18, in addition, Tewari discloses that receiving the at least one device signature further comprises associating a munged URL with the at least one device signature (Page 25, Paragraph 610).

Regarding Claim 26,

Tewari discloses a server for managing a communication with a device over a network comprising:

A transceiver for receiving a request from the device and for sending at least one device signature to the device (Page 25, Paragraphs 609-610; transceiver being inherent in a computer system that communicates bi-directionally across a network);

A transcoder that is configured to perform actions including:

Receiving the request from the device, wherein the request includes associated information (Page 25, Paragraphs 609-610);

Determining at least one level of trust based, in part, on the associated information (Page 25, Paragraphs 607-609; and Page 27, Paragraph 647); and

Determining the at least one device signature for the device based on the at least one level of trust (Page 25, Paragraphs 610-615);

But does not disclose that the device is a mobile device.

Laraki, however, discloses that the device is a mobile device (Page 3, Paragraph 33). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the mobile subscription services of Laraki into the content delivery system of Tewari in order to efficiently provide mobile users with access to content based upon subscriptions and affiliations in which a user will not be charged twice for content that was previously paid for, but could not be downloaded prior to expiration of the subscription, and is downloaded after expiration, thus improving reliability of the system (Page 5, Paragraph 49).

Regarding Claim 27,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that the transcoder is configured to receive gateway information, and determine the at least one level of trust based, in part, on the associated information and the gateway information (Page 25, Paragraphs 607-610; and Page 27, Paragraph 647); and Laraki

discloses that the gateway is associated with a carrier gateway for the mobile device (Pages 3-4, Paragraph 40).

Regarding Claim 28,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that determining the at least one device signature further comprises if a first level of trust is determined, determining the first tier device signature based, in part, on a hash of at least one of a subscription identifier, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 29,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that determining the at least one device signature further comprises if a second level of trust is determined, determining a second tier device signature based, in part, on a hash of at least one of a cookie, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 30,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that determining the at least one device signature further comprises if a third level of trust is determined, determining a third tier device signature based, in part, on a hash of at least one of a gateway group identifier, a user agent identifier, a server

identifier, a process identifier, a random number, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 31,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that determining the at least one level of trust further comprises determining a first level of trust based on at least one of a gateway group identifier, a subscription identifier, a user agent, and a security level associated with the request from the mobile device (Page 25, Paragraphs 607-610; and Page 27, Paragraph 647).

Regarding Claim 32,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that determining the at least one level of trust further comprises determining a second level of trust based on at least one of a gateway identifier, a user agent, and whether the mobile device is enabled to accept a cookie (Page 25, Paragraphs 607-610; and Page 27, Paragraph 647).

Regarding Claim 33,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that determining the at least one level of trust further comprises determining a third level of trust if the mobile device is enabled to interact with a URL (Page 25, Paragraph 610).

Regarding Claim 34,

Tewari as modified by Laraki discloses the server of claim 26, in addition, Tewari discloses that the transcoder is configured to determine if at least one device signature has expired (Page 25, Paragraph 617); and Laraki discloses determining if at least one device signature has expired (Page 4, Paragraph 45; and Page 6, Paragraph 66); and if the expired device signature is to be rolled over, extending a validity period associated with the expired device signature (Page 4, Paragraph 45; and Page 6, Paragraph 66).

Regarding Claim 35,

Tewari discloses a system for managing a communication with a device over a network comprising:

The device configured to provide information associated with the device (Page 25, Paragraphs 609-615); and

A server, coupled to a gateway, that is configured to receive the associated information and to perform actions, including:

Determining at least one level of trust based, in part, on the associated information (Page 25, Paragraphs 607-610; and Page 27, Paragraph 647); and

Determining at least one device signature for the device based on the at least one level of trust (Page 25, Paragraphs 610-615);

But does not disclose that the device is a mobile device or that the gateway is a carrier gateway.

Laraki, however, discloses that the device is a mobile device and that the gateway is a carrier gateway (Pages 3-4, Paragraphs 33 and 40). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the mobile subscription services of Laraki into the content delivery system of Tewari in order to efficiently provide mobile users with access to content based upon subscriptions and affiliations in which a user will not be charged twice for content that was previously paid for, but could not be downloaded prior to expiration of the subscription, and is downloaded after expiration, thus improving reliability of the system (Page 5, Paragraph 49).

Regarding Claim 36,

Tewari as modified by Laraki discloses the system of claim 35, in addition, Tewari discloses that determining the at least one device signature further comprises a tier one device signature based, in part, on a hash of at least one of a subscription identifier, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 37,

Tewari as modified by Laraki discloses the system of claim 35, in addition, Tewari discloses that determining the at least one device signature further comprises determining a tier two device signature based, in part, on a hash of at least one of a cookie, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 38,

Tewari as modified by Laraki discloses the system of claim 35, in addition, Tewari discloses that determining the at least one device signature further comprise determining a tier three device signature based, in part, on a hash of at least one of a gateway group identifier, a user agent identifier, a server identifier, a process identifier, random number, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 39,

Tewari as modified by Laraki discloses the system of claim 38, in addition, Tewari discloses that the tier three device signature is provided to the device through a munged URL (Page 25, Paragraph 610).

Regarding Claim 40,

Tewari as modified by Laraki discloses the system of claim 35, in addition, Laraki discloses a carrier gateway, coupled to the mobile device, that is configured to receive the associated information, and provide the associated information and gateway information related to the carrier gateway (Page 3, Paragraphs 33-37; and pages 4-5, Paragraphs 46-48).

Regarding Claim 41,

Tewari discloses a method comprising:

Receiving a request from a device, wherein the request includes associated information (Page 25, Paragraphs 609-610); and

Sending at least one device signature to the device based on at least one level of trust that is determined, in part, using the associated information (Page 25, Paragraphs 609-615);

But does not disclose that the device is a mobile device.

Laraki, however, discloses that the device is a mobile device (Page 3, Paragraph 33). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the mobile subscription services of Laraki into the content delivery system of Tewari in order to efficiently provide mobile users with access to content based upon subscriptions and affiliations in which a user will not be charged twice for content that was previously paid for, but could not be downloaded prior to expiration of the subscription, and is downloaded after expiration, thus improving reliability of the system (Page 5, Paragraph 49).

Regarding Claim 42,

Tewari as modified by Laraki discloses the method of claim 41, in addition, Tewari discloses that determining the at least one device signature further comprises if a first level of trust is determined, determining a first tier device signature based, in part, on a hash of at least one of a subscription identifier, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 43,

Tewari as modified by Laraki discloses the method of claim 41, in addition, Tewari discloses that determining the at least one device signature further comprises if a second level of trust is determined, determining a second tier device signature based, in part, on a hash of at least one of a cookie, a gateway group identifier, a user agent identifier, and a time stamp (Page 25, Paragraph 615).

Regarding Claim 44,

Tewari as modified by Laraki discloses the method of claim 41, in addition, Tewari discloses that determining the at least one device signature further comprises if a third level of trust is determined, determining a third tier device signature based, in part, on a hash of at least one of a gateway group identifier, a user agent identifier, a server identifier, a process identifier, a random number, and a time (stamp) (Page 25, Paragraph 615).

3. Claims 8 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tewari in view of Laraki, further in view of Wilf (U.S. Patent 6,496,824).

Regarding Claim 8,

Tewari as modified by Laraki discloses the method of claim 1, in addition, Tewari discloses determining the at least one level of trust comprises if the associated information contains a certain piece of information, determining a second level of trust (Page 25, Paragraphs

607-615; and Page 27, Paragraph 647); but does not disclose that the certain piece of information is that the device is enabled to accept a cookie.

Wilf, however, discloses information that indicates that the device is enabled to accept a cookie (Column 4, lines 5-35). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the session management system of Wilf into the content delivery system of Tewari as modified by Laraki in order to provide a stronger signature, based upon more client and/or gateway specific information, thus increasing security of the signature and making it harder to forge.

Regarding Claim 24,

Tewari as modified by Laraki does not disclose that if a request indicates the mobile device is enabled to accept a cookie, associating a cookie with the at least one device signature.

Wilf, however, discloses that if a request indicates the mobile device is enabled to accept a cookie, associating a cookie with the at least one device signature (Column 4, lines 5-35). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the session management system of Wilf into the content delivery system of Tewari as modified by Laraki in order to provide a stronger signature, based upon more client and/or gateway specific

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information, thus increasing security of the signature and making it harder to forge.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-272-7215. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER

Jeffrey D Popham
Examiner
Art Unit 2137

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